A New Species of *Mystrops* from Costa Rica

(Coleoptera: Nitidulidae)

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Nitidulid beetles of the genus *Mystrops* Erichson are found in the New World from Mexico south to Argentina. Not a great deal is known of their life histories and food preferences. At the present time three species are known definitely from feather-leafed palms, where the larvae and adults are found in the blossoms feeding on pollen. The beetles may occur in great numbers on the male inflorescence. If disturbed, they fly around it like a swarm of gnats.

Bondar (1940) reported an agricultural pest, *Mystrops fryi* Grouvelle (*M. palmarum* Bondar), in blossoms of *Cocos coronata* Mart. and *Cocos nucifera* Linnaeus. From male flowers of the palm *Cocos romanzoffiana* Chamille, he collected another species, *Mystrops bondari* Gillogly.

The queen palm, known variously as *Cocos plumosa* Hook., or *Arecastrum romanzoffianum* Beccari, is associated with a third species. A large number of specimens of *Mystrops heterocera* Sharp were collected with a long-handled net from blossoms of the queen palm on 28 August 1965 by the author. The locality was Mexico, near Acayucan on the highway across the Isthmus of Tehuantepec.

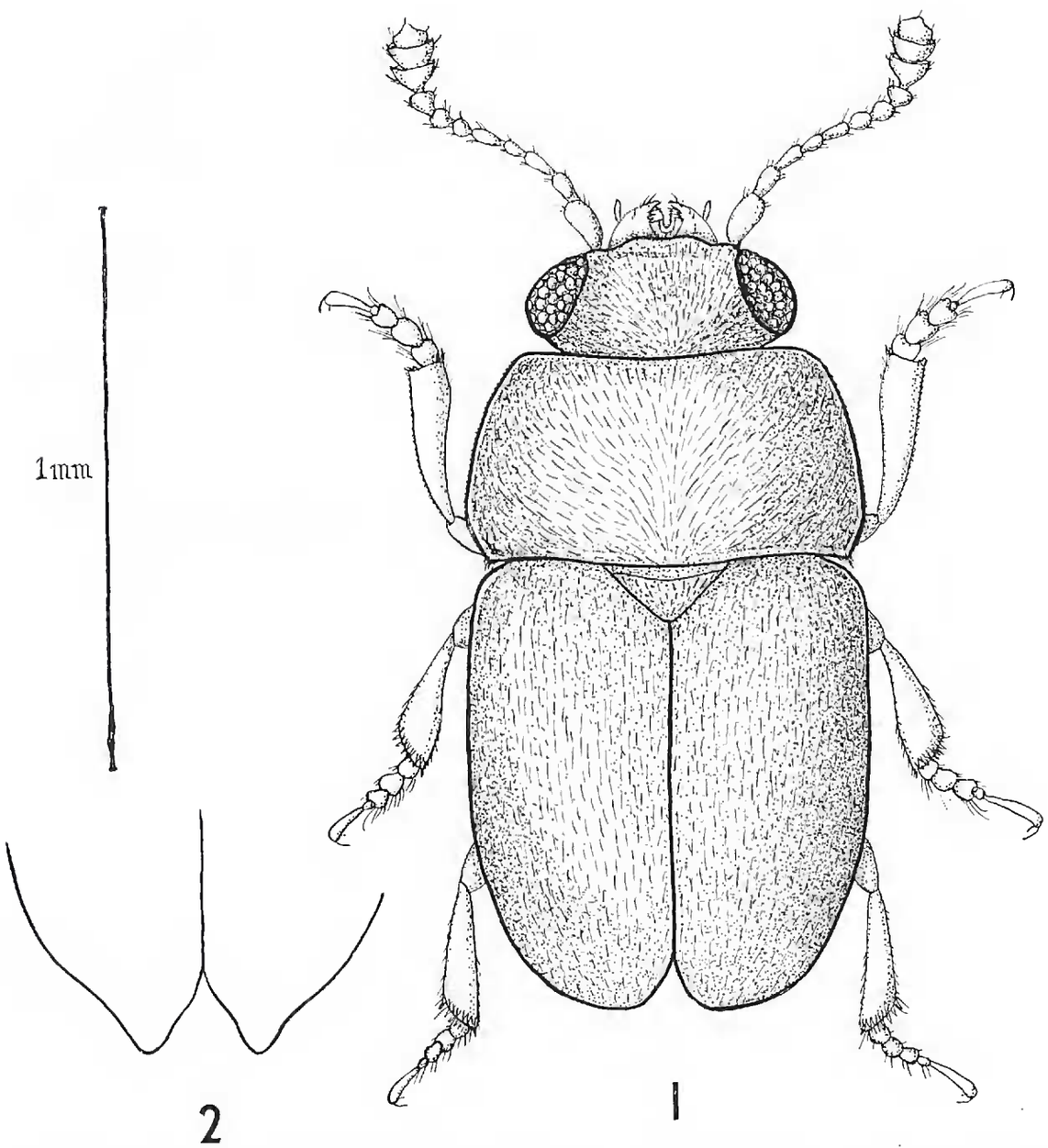
A new species of *Mystrops* infesting palm blossoms is herein described and figured, with illustrations by G. M. Gillogly. Because of its potential economic importance, the nitidulid beetle will merit further observations and studies.

Mystrops costaricensis Gillogly, new species

MALE.—(Fig. 1). Oblong, strongly convex, surface finely reticulate, moderately shiny but surface obscured by rather dense, recumbent, golden pubescence, color uniformly testaceous except for black coarsely faceted eyes. Scutellum enclosed by somewhat darker triangular area when viewed at certain angles.

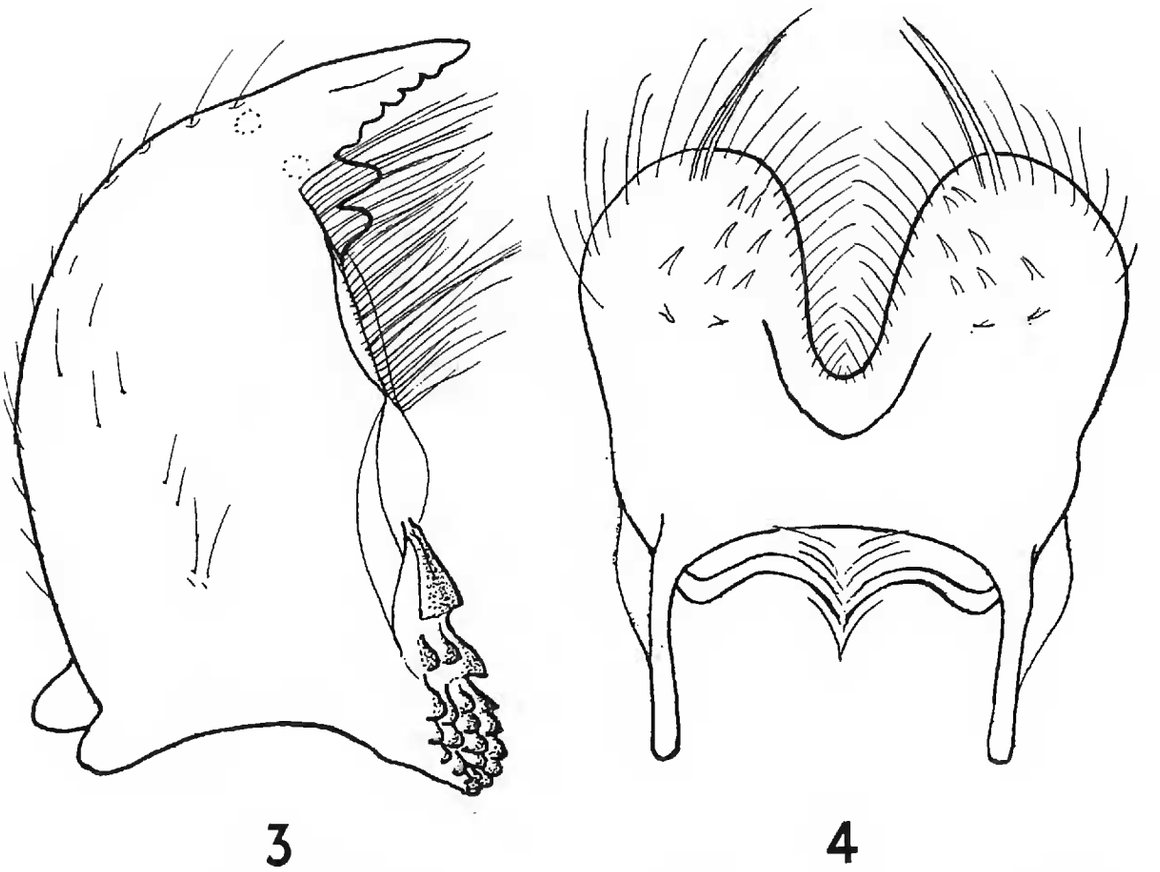
Head transverse, with dense, coarse, close lying golden pubescence obscuring surface. Eyes coarsely faceted, prominent. Front nearly quadrate, only slightly narrower in front of eyes than behind. Labrum (Fig. 4) very deeply bilobed, indentation nearly attaining clypeus, lobes fairly evenly rounded. Mandibles (Fig. 3) with outer margin rather evenly curved, tip almost sharp with inner margin crenate; two teeth at base of inner margin of tip, somewhat obscured by beard; molar area rasplike, with larger teeth toward tip and becoming rather small at base. Maxillae (Fig. 5) with lacinia broad, truncate, inner angle produced into definite spur, outer angle acute but not attenuate, tip

THE PAN-PACIFIC ENTOMOLOGIST 48: 116–120. April 1972



FIGS. 1 and 2. *Mystrops costaricensis*. FIG. 1. Adult male. FIG. 2. Female. Elytra tips attenuate.

heavily bearded; palpi with first segment minute, twice as wide as long, second segment transverse, nearly elbowed, about three times as long and three times as wide as first segment, third segment nearly square in outline being somewhat narrower at tip than at base; terminal segment elongate, nearly twice as long as first three segments together, widest at basal one-fourth narrowing to tip and base. Labium (Fig. 6) with ligula spatulate; paraglossae broad, obliquely truncate tips, strongly bearded; palpi, first segment minute, second clavate, third thick, slightly sigmoidal; submentum bilobed distally with small protuberance in middle of sinuation, strongly indented on each side near base. Antennae short, reaching to mesosternum, pubescence fine with few erect hairs on each segment; club distinct, of three equal segments. Prothorax almost rectangular, nearly twice as wide as long, anterior margin straight, a little narrower than base; sides narrowly margined, hardly explanate, evenly arcuate



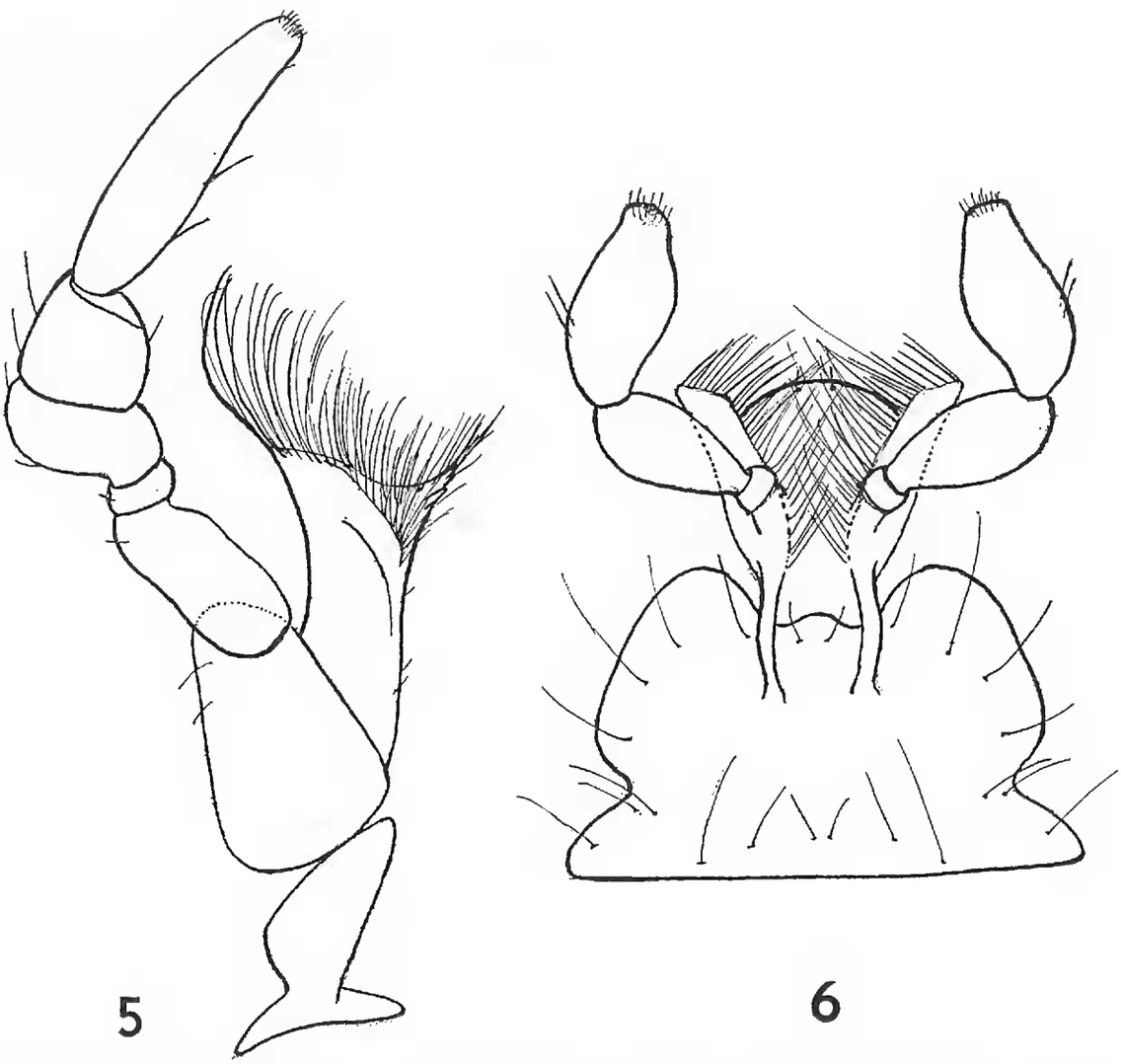
FIGS. 3. and 4. *Mystrops costaricensis.* Adult male. Mouthparts. FIG. 3. Mandible. FIG. 4. Labrum.

from apex to three quarters then strongly retracted to distinct obtuse angle; base narrowly margined, lightly sinuate at each side of scutellum, more strongly sinuate near hind angles which project slightly to rear; surface rather closely moderately finely punctate with pubescence somewhat less dense than on head; texture of surface smooth between punctures. Scutellum triangular, twice as wide as long, surface distinctly finely reticulate. Elytra length to width as 1.3 to 1, sides parallel, tips rounded, sutural angles rounded, pubescence and punctation more sparse than on prothorax. Pygidium convex, evenly curved, strongly closely pubescent. Prosternum convex, sparsely finely punctate, lightly pubescent, surface strongly finely reticulate, process narrow, depressed behind coxae. Metasternum sparsely punctate, strongly finely reticulate; axillary space large, extending along episternal suture nearly to hind coxae. Abdominal segments of equal length, rather pubescent, surface reticulate. Supplementary segment not visible from above, hardly visible from below but usually to be seen from behind.

FEMALE.—Punctation more sparse than male, pubescence finer. Tips of elytra strongly attenuate (Fig. 2). Pygidium tip simple. Antennae similar to those of male.

LENGTH.—1.4 to 1.7 mm. Width: 0.6 to 0.8 mm.

Holotype male and allotype GUÁPILES, LIMÓN, COSTA RICA, altitude 300 m, 16 November 1968 are deposited in the California Academy of Sciences. Paratypes are deposited in the collections of the University



FIGS. 5 and 6. *Mystrops costaricensis*. Adult male. Mouthparts. FIG. 5. Maxilla. FIG. 6. Labium.

of Costa Rica; the Inter-American Institute of Agricultural Sciences at Turrialba, Costa Rica; American Museum of Natural History; and the United States National Museum.

Type and allotype and all 322 paratypes (159 males and 163 females) were taken with the assistance of Ingeniero Francisco Matamoros from the same male inflorescence of *Elaeis guineensis* Jacq., African oil palm, on the afternoon of 16 November 1968 at Guapiles in the state of Limon. The oil palms are grown at the Experiment Station Los Diamantes, a cooperative project of the Department of Agriculture of Costa Rica with the A.I.D. program of the United States.

Mystrops costaricensis falls in the key (Gillogly, 1955) at couplet #3 with *M. discoidea* Murray from which it may be separated by its short antennae. The antennae of *M. discoidea* are nearly as long as the body in both sexes.

My visit to the station was arranged through the kindness of Dr. Vargas of the Department of Agriculture of Costa Rica. I gratefully acknowledge the counsel and assistance of the ecologists at the Tropical Science Center of San Jose, Costa Rica: Joseph A. Tosi, Jr. and Dr. L. R. Holdridge.

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Gillogly, L. R. 1955. A review of the genus *Mystrops* Erichson (Coleoptera, Nitidulidae). Rev. Brasil. Entomol., 3: 191–204.

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